

**REMARKS**

Claims 9-15 are pending in this application. By this Amendment, claims 9-11, 13 and 14 are amended to even further distinguish over the applied references and to correct informalities and improve readability. No new matter is added. Reconsideration of this application in view of the above amendments and the following remarks is respectfully requested.

Applicants note that Reference 2 in the May 6, 2005 Information Disclosure Statement (IDS) has not been considered by the Examiner. The relevance of Reference 2 was described in the English language version of an International Search Report (ISR) that was submitted with the May 6, 2005 IDS. The ISR constitutes a statement of relevance with regard to Reference 2. Therefore, it is requested that the Examiner consider Reference 2 and return to Applicants' undersigned representatives a fully initialed Form PTO-1449.

The Office Action rejects claims 9, 10 and 12-15 under 35 U.S.C. §103(a) over Schirmer, U.S. Patent No. 4,006,589, in view of Polomchak et al. (Polomchak), U.S. Patent No. 5,380,194. The rejection is respectfully traversed.

The combination of Schirmer and Polomchak does not disclose or render obvious a combustor having means for introducing a straight-line air current into a burner tile, which straightly flows in a vicinity of the burner nozzle from a first end to a second end of the burner tile at which there is an opening of the burner tile by operation of a blower, the straight-line air current flowing straightly through a central portion of the burner tile from the first end to the second end, as recited in independent claim 9.

Schirmer discloses an air-assisted fuel inlet means disposed in a dome member for introducing a stream of fuel into an upstream first combustion section of a flame tube (see col. 2, lines 1-4). The air provided through flow controller 114, valve 116 and feed conduit 118 is used for atomizing the fuel before combustion (see col. 5, lines 58-61 and col. 6, lines

47-50). That is, the air in Schirmer is provided in the nozzle 24 to atomize the fuel, not to produce a straight-line air current. Furthermore, Schirmer only discloses that a first stream of air can be introduced in an axial direction and that the first stream of air flows around fuel, which is sprayed in a hollow cone (see col. 7, lines 20-27). Schirmer does not disclose that the first stream of air flows straightly through a central portion of the dome member from one end to the other end.

Polomchak fails to overcome the deficiencies of Schirmer. Specifically, Polomchak discloses a heating device having blower 92 that provides air to a burner assembly 12 where it intermixes with gas from nozzle 24 in tubular housing 14 (see Figs. 1 and 4). The intermixing is accomplished through the use of fins 50 that swirl the air turbulently in tubular housing 14 before the mixture of gas and air exits into combustion chamber 16 (see Figs. 1 and 3 and col. 57-63). Polomchak teaches that by intermixing the gas and air, a more complete burning or oxidation of the gas can be accomplished (see col. 4, lines 24-26). After intermixing, the air gas mixture exits tubular housing 14 through a ring shaped exit gap 64 into combustion chamber 16 (see Fig. 3). Because the air is intermixed with the gas such that it swirls turbulently in tubular housing 14, the air in Polomchak cannot be considered to straightly flow in a vicinity of the nozzle and cannot be considered to produce a straight-line air current from one end to the other end of the combustion chamber. Thus, Polomchak fails to overcome the deficiencies of Shirmer.

Therefore, the combination of Schirmer and Polomchak does not disclose or render obvious a combustor having all features recited in independent claim 9. Therefore, independent claim 9 and dependent claims 10 and 12-15 are patentable over the combination of Schirmer and Polomchak. Thus, it is respectfully requested that the rejection be withdrawn.

The Office Action rejects claim 11 under 35 U.S.C. §103(a) over Schirmer in view of Polomchak, and in further view of Nakamura et al. (Nakamura), U.S. Patent No. 4,974,780.

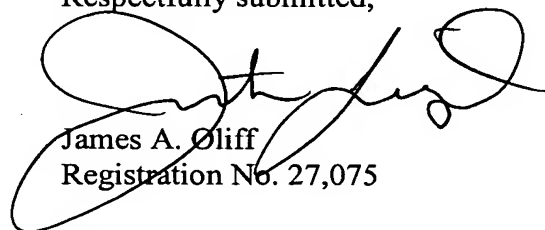
The rejection is respectfully traversed.

Because claim 11 incorporates the features of independent claim 9, and because Nakamura fails to overcome the deficiencies of Schirmer and Polomchak, claim 11 also is patentable over the applied references for at least these reasons, as well as for the additional features that claim 11 recites. Thus, it is respectfully requested that the rejection be withdrawn.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff  
Registration No. 27,075

Justin T. Lingard  
Registration No. 61,276

JAO:JTL/jls

Date: April 17, 2008

**OLIFF & BERRIDGE, PLC**  
**P.O. Box 320850**  
**Alexandria, Virginia 22320-4850**  
**Telephone: (703) 836-6400**

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
--